

Union Oil Company of California
P.O. Box 1074
Coalinga, CA 93210

DIVISION OF OIL AND GAS
RECEIVED

MAY 28 1982

WOODLAND, CALIFORNIA



May 25, 1982

RE: Water Disposal Well "Galli" #1
Union Island Gas Field

Mr. John C. Sullivan, Deputy Supervisor
Division of Oil and Gas
117 W. Main Street, Suite No. 11
Woodland, California 95695

Dear Mr. Sullivan:

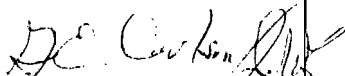
In response to your letter of May 21, 1982, we are supplying the information, as requested, for exemption of our "Galli" #1 disposal well from the provisions of the Underground Injection Control program.

The "Galli" #1 well disposes of produced water (from the Union Island Gas Field) into the Mokelumne River formation (5310-5720'). The well is located approximately 6 miles north of the town of Tracy and 11 miles southwest of Stockton on property owned by Galli Farms (L. Galli). The Mokelumne formation contains a brackish water (10,106 mg/l TDS) that is not suitable for drinking and is therefore not used as a source of drinking water (according to the DWR). This formation lacks any unusual geologic features (geology was supplied with our letter of May 19, 1977 when the well was converted for disposal.)

Drinking water wells in the area of the Union Island Gas Field are between 1000' and 1500' deep (according to the DWR), therefore, our injection interval is in excess of twice their depth. These wells yield water at rates as high as 2000-3000 gal/min. (according to the DWR). Delta and river water serve as alternate sources of water in this area.

Attached is a copy of the analysis of the Mokelumne formation water.

Very truly yours,


G.E. Carlson, Agent

JWL:jmm

Attachment

July 28.

DIVISION OF OIL AND GAS
RECEIVED

MAY 28 1992

WOODLAND, CALIFORNIA

Union Oil

P. O. Box 547

Isleton, California

THE FOLLOWING ARE THE RESULTS OF ANALYSIS OF A SAMPLE OR SAMPLES AS RECEIVED FROM YOU BY THIS LABORATORY:

NAME OF MATERIAL

Water Samples

Formation Water

RECEIVED 7-21-77

From Galli #1
Mokelumne Sand

Carbonate (CO_3)	ppm	None
Bicarbonate (HCO_3)	ppm	305
Chloride (Cl)	ppm	5920
Sulfate (SO_4)	ppm	9
Nitrate (NO_3)	ppm	< 1
Calcium (Ca)	ppm	196
Magnesium (Mg)	ppm	106
Sodium (Na)	ppm	3570
Percent Sodium (%)		89
Total Dissolved Salts	ppm	10106
Electrical Conductivity (mmhos/cm)		21

7.8

This sample is very unsatisfactory for irrigation purposes, primarily due to the extremely high chloride, sodium and total salt levels.

BILL G. SPRADLIN

AUG 2 1977

A. E. ADDONER

AUG 24 1977

(a) = 0.005 per million

✓ = "yes" ; "no"

1005701 1005702 1005703 1005704 1005705

NELSON LABORATORIES

EY

Memorandum

To : Robert A. Reid, E.P.A. Coordinator

RECEIVED
DIVISION OF OIL & GAS
SACRAMENTO
MAY 28 1 25 PM '82

Date : May 26, 1982

Subject: Exemption Criteria

From : Department of Conservation—
Division of Oil and Gas

Place: COALINGA

COALINGA FIELD

Santa Margarita Formation (Class III criteria)

- A. This aquifer is not a source of drinking water.
- B. There are no water wells listed by DWR.
- C. Location
 - 1. Underlies the city of Coalinga.
 - 2. Too complex to list or research.
 - 3. City water supplied by California Aqueduct system.
 - 4. No unusual geology.
- D. 8244 ppm TDS.
- E. No wells available to test.

Etchegoin-Jacalitos Formation (Class II criteria)

- A. This aquifer is not a source of drinking water.
- B. This aquifer is known to be hydrocarbon bearing at commercial levels.
- C. This formation has been approved for surface disposal by the Water Quality Control Board.

GUIJARRAL HILLS FIELD

Etchegoin-Jacalitos (Class III criteria)

- A. This aquifer is not a source of drinking water.
- B. There are no water wells listed by DWR.
- C. Location
 - 1. 4 miles to Huron and 6 miles to Coalinga.
 - 2. Owned predominately by Chevron U.S.A. Inc.
 - 3. Irrigation water obtained from California Aqueduct system.
 - 4. No unusual geology.
- D. 9400 ppm TDS.
- E. No wells available to test.

HELM FIELD

Tulare-Kern River (Class III criteria)

- A. This aquifer is not a source of drinking water.
- B. DWR lists 18 irrigation wells the deepest of which is 1020 feet deep. The top of the shallowest injection well interval is 1910 feet in one well with the rest all being below 2000 feet.
- C. Location
 - 1. 1 mile to Lanare, 2 miles to Helm and Burrel and 4 miles to Riverdale.
 - 2. Too complex to research or list.
 - 3. All water is supplied from wells.

(continued)

Exemption Criteria

Page Two

- 4. No unusual geology.
- D. 5100 to 23,900 ppm TDS dependent on depth.
- E. No wells available to test.

RIVERDALE FIELD

Pliocene Formation (Class III criteria)

- A. This aquifer is not a source of drinking water.
- B. DWR lists 10 irrigation wells the deepest of which is 555 feet with perforations to 455 feet. The top of the shallowest injection well interval is 1840 feet with most of them below 2000 feet.
- C. Location
 - 1. $1\frac{1}{2}$ miles from Lanare, 4 miles from Burrell and partially underlies the community of Riverdale.
 - 2. Too complex to research or list.
 - 3. All water is supplied from wells.
 - 4. No unusual geology.
- D. 4788 to 16,200 ppm TDS dependent on depth.
- E. No wells available to test.

TURK ANTICLINE

San Joaquin Formation (Class III criteria)

- A. This aquifer is not a source of drinking water.
- B. DWR lists 1 irrigation well with a depth of 1196 feet. Top of injection interval is 2970 feet.
- C. Location
 - 1. 4 miles from Cantua Creek and 10 miles from Five Points.
 - 2. Appears to be Estate of James MacDonald- inadequate time to research.
 - 3. Unknown- inadequate time to research.
 - 4. No unusual geology.
- D. 3700 to 4440 ppm TDS.
- E. No wells available to test.

The problem of ownership of the land is sheer numbers. Coalinga field would have 5,000 to 10,000 or more separate owners since the aquifer underlies the city and other fields would be in the 100's. Yield of wells is determined by pump tests and since there is no commercial market for salt water no one has ever made a test of these aquifers.



Richard F. Curtin
Deputy Supervisor

Data for Attachment B Criteria

III

A. I hereby declare that the aquifers listed below are not a source of drinking water.


Deputy Supervisor

San Ardo Field

B. T.23S, R.10E, Sec. 1, T.23S, R.11E, Secs. 6 and 7.

Department of Water Resources has no record of any well in the area of this project.

- C. 1. Santa Margarita, Monterey "D" and Monterey "E" project sands are six miles from Bradley and five miles from San Ardo.
2. The above aquifers are on private land.
3. Alternate water sources are the Salinas River and ground water in the terraces to the east.
4. There is no unusual geology.

D. TDS concentration in Santa Margarita is 3700 ppm.

TDS concentration in Monterey "D" sand is 4600 ppm.

TDS concentration in Monterey "E" sand is 6400 ppm. As there is some minor amount of 10⁶ API oil in this sand, it should not have been listed as a non-hydrocarbon producing zone.

E. Water yields were not determined.

Monroe Swell Field

B. T.19S, R.7E, Sec. 19

Department of Water Resources has no record of any water well in the area of this project.

- C. 1. Santa Margarita project sand is five miles south of Greenfield and ten miles northwest of King City.
2. The above aquifer is on private land.
3. Alternate water sources are the Salinas River and ground water in the terraces to the west.
4. There is no unusual geology.

D. TDS concentration in Santa Margarita sand was not determined; water samples taken at 1590' tested 3700 ppm NaCl.

Note: The part of the injection zone below 1555' may be Monterey.

E. Water yields were not determined.

DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

146 SOUTH OJAI STREET, P. O. BOX 67

SANTA PAULA, CALIFORNIA 93060

(805) 525-2105



June 8, 1982

Ramona Oil FieldPico Fm.

Operator - Texaco Inc.

Operator Contact - Mr. Buchanan, Senior Prod. Engr. (213-385-0515)

Fresh water wells in vicinity - none

FW Source for Operations - FW well 1/2 mile north, drilled by operator.

Ownership of land - Private

Oat Mountain FieldUndifferentiated Marine

Operator - Union Oil Co. of Calif.

Operator Contacts - David Salzman, Prod. Engr. (805-525-6672)
Ed Hall, Geologist, (805-656-7600, Ext. 229)

Fresh water wells in vicinity - none

Source of FW - piped in from valley

Ownership of land - Private and Federal

South Tapo Canyon FieldPico Fm.

Operator - Union Oil Co. of Calif.

Fresh water wells in vicinity - none

Source of FW - piped in

Ownership of land - Private

Simi FieldSespe Fm.

Operator - Union Oil Co. of Calif.

Fresh water wells in vicinity - none

Wells drilled for FW by operator, ab'd. due to poor quality and low volumes.

Ownership of land - Private

Fresh Water

Ramona Field	4N-18W	Sec's. 12 & 13
	4N-17W	Sec's. 7, 8, 18, & 17
Oat Mountain	3N-17W	Sec. 24
	3N-16W	Sec's. 19 & 20
Simi	3N-17W	Sec's. 29, 30, 31, & 32
	3N-18W	Sec's. 31, 32, 33, 34, 35, & 36
	2N-18W	Sec. 6
South Tapo Canyon	3N-17W	Sec's. 7 & 8
	3N-18W	Sec's. 12 & 13

Examination of water well records and surface water quality records fails to point out any water wells within the administrative field boundaries of the fields in question.

§ 180.379 Cyano(3-phenoxyphenyl methyl 4-chloro-alpha-(1-methyl-ethyl)benzeneacetate; tolerances for residues.

Commodities	Parts per million
.....
Filberts	0.2

[FR Doc. 82-19638 Filed 7-20-82; 8:45 am]

BILLING CODE 6560-50-M

40 CFR Part 435

[WH-FRL 2121-2]

Oil and Gas Extraction, Point Source Category; Suspension of Regulations

AGENCY: Environmental Protection Agency (EPA).

ACTION: Suspension of regulations and request for comments.

SUMMARY: EPA is suspending the applicability of "best practicable control technology currently available (BPT)" effluent limitation guidelines regulations for the onshore subcategory of the oil and gas extraction point source category as they apply to facilities located onshore engaged in the production, field exploration, drilling, well completion and well treatment in this industry in existence on April 13, 1979 or thereafter which would have been considered "coastal" as defined in Section 435.41 of the October 13, 1976 Interim Final regulations (41 FR 44943) for this industry. This action is in response to the Court's decision in *American Petroleum v. EPA*, 661 F.2d 340 (5th cir., 1981). In addition, EPA is suspending the applicability of these regulations as to wells located in the Santa Maria Basin of California.

EPA also will reexamine the question of whether or not to establish different effluent limitation guidelines for marginal gas wells.

DATES: The suspension of these regulations as to facilities in existence on April 13, 1979 or thereafter, which are located on land and which would have been considered "coastal" and allowed to discharge under EPA's October 13, 1976 interim final regulations for the oil and gas extraction point source category, is effective as of November 13, 1981, the date of the Court's decision requiring today's action. The suspension of the regulation as to facilities located in the Santa Maria Basin of California is effective August 20, 1982. Comments

must be submitted on or before September 20, 1982.

ADDRESS: Comments should be sent to Ron Kirby, Effluent Guidelines Division (WH-552), Washington, D.C. 20460. Attention: EGD Docket Clerk, Oil and Gas Extraction Industry, (WH-552).

The supporting information and all comments received will be available for inspection and copying at the EPA Public Information Reference Unit, Room 2404 (Rear) PM-213 (EPA Library). The EPA information regulation (40 CFR Part 2) provides that a reasonable fee may be charged for copying.

FOR FURTHER INFORMATION CONTACT: Ron Kirby, Effluent Guidelines Division (WH-552), Environmental Protection Agency, 401 M Street, SW., Washington, D.C. 20460, or call (202) 472-9075.

SUPPLEMENTARY INFORMATION:

A. Court Opinion

On April 13, 1979 (44 FR 22069) EPA promulgated certain "best practicable control technology currently available (BPT)" effluent limitation guidelines for the oil and gas extraction point source category, 40 CFR Part 435, under the Clean Water Act, as amended, 33 U.S.C. 1251 *et seq.* In *American Petroleum Institute v. EPA*, 661 F.2d 340 (1981), the Fifth Circuit Court of Appeals remanded the Agency's recategorization from the coastal subcategory to the onshore subcategory of certain wells located on land within Texas and Louisiana. The Agency's Interim Final Regulations' definition of "coastal" only applied to wells within those two States. An effect of this recategorization was that these wells which had been allowed to discharge under the interim final regulations (40 CFR 435.41, 41 FR 44943, October 13, 1976), could no longer discharge (40 CFR 435.30, 44 FR 22069, April 13, 1979). The Court held that EPA had not adequately analyzed the costs of this regulatory change. Accordingly, EPA is suspending the applicability of 40 CFR 435.30 to these wells. EPA is also suspending the applicability of the regulations to any wells which came into existence after issuance of the 1979 Final Regulations so as to treat all wells in this area the same. Permit conditions will be determined on a case-by-case basis.

The wells affected by this portion of the Court order are those facilities located landward from the inner boundary of the territorial seas and bounded on the inland side by the line defined by the inner boundary of the territorial seas eastward of the point defined by 89°45' W. Longitude and 29°46' N. Latitude and continuing as follows west of that point:

Direction to west longitude	Direction to north latitude
West, 89°48'	North, 29°50'
West, 90°12'	North, 30°06'
West, 90°20'	South, 29°35'
West, 90°35'	South, 29°30'
West, 90°43'	South, 29°25'
West, 90°57'	North, 29°32'
West, 91°02'	North, 29°40'
West, 91°14'	South, 29°32'
West, 91°27'	North, 29°37'
West, 91°33'	North, 29°48'
West, 91°48'	North, 29°50'
West, 91°50'	North, 29°55'
West, 91°56'	South, 29°50'
West, 92°10'	South, 29°44'
West, 92°55'	North, 29°48'
West, 93°15'	North, 30°14'
West, 93°49'	South, 30°07'
West, 94°03'	South, 30°03'
West, 94°10'	South, 30°00'
West, 94°20'	South, 29°53'
West, 95°00'	South, 29°35'
West, 95°13'	South, 29°28'
East, 95°08'	South, 29°15'
West, 95°11'	South, 29°08'
West, 95°22'	South, 28°58'
West, 95°30'	South, 28°55'
West, 95°33'	South, 28°48'
West, 95°40'	South, 28°47'
West, 96°42'	South, 28°41'
East, 96°40'	South, 28°28'
West, 96°54'	South, 28°20'
West, 97°03'	South, 28°13'
West, 97°15'	South, 27°58'
West, 97°40'	South, 27°45'
West, 97°48'	South, 27°28'
West, 97°51'	South, 27°22'
East, 97°48'	South, 27°14'
East, 97°30'	South, 26°30'
East, 97°28'	South, 26°11'

East to 97°19' W. Longitude and Southward to the U.S.—Mexican border.

In addition, the Court directed EPA to reexamine the problems of marginal gas wells and consider treating them similarly to the way the Agency treats stripper oil wells. The Agency has created a separate subcategory for stripper oil wells but has not established nationally applicable effluent limitations.

EPA is considering the effects of the Court remand of the Agency's recategorization from the coastal subcategory to the onshore subcategory of certain wells located on land within Texas and Louisiana, and the Court's directive to reexamine the problems of marginal gas wells and consider adding them to the guidelines for stripper oil wells. The Agency invites comment from the public on the issues raised by the Court remand.

EPA is examining the following issues regarding wells in Texas and Louisiana:

- The number of wells located on land that currently discharge to saline, fresh or brackish waters;
- The wastewater characteristics and amounts of the produced waters discharged from these sources;
- The cost of achieving zero discharge and how that cost is related to well characteristics such as size of well, location, production, geologic conditions, depth and other factors;

- The environmental impacts arising from produced waters discharged which may not be compatible with the receiving streams in terms of salinity, chemical composition, temperature, or pH.

The Agency specifically invites comments from the public on the above issues.

The Agency is reexamining the following issues regarding marginal gas wells:

- The appropriate definition of "stripper gas wells". A possible definition the Agency is considering is the one used by the Department of Energy (DOE) which defines such wells as those producing less than 60 thousand cubic feet (mcf) of natural gas per day;
- The number of marginal gas wells in existence which would be considered stripper under the DOE definition of stripper gas wells;
- The wastewater characteristics and amounts of produced waters discharged from marginal gas wells;
- The environmental impacts arising from produced waters discharged which may not be compatible with the receiving streams in terms of salinity, chemical composition, temperature or pH;
- The costs involved in achieving zero discharge from marginal gas wells and how zero discharge would affect production.

EPA will consider data produced both by the Agency and by various outside groups pertaining to these issues. One study that EPA is considering using as a source of information for the above questions is the "Analysis of the Economic Impact of EPA Proposal to Exclude from the Coastal Subcategory discharges from wells located on land but Discharging into Coastal Waters" (March 1978) and Addendum I (April 1978) by J. Gruy and Associates, Inc." ("Gruy Report").

EPA specifically invites comments from the public on the above issues.

B. Wells in Santa Maria Basin

EPA has recently received technical information that reinjection of produced waters by wells in the Santa Maria Basin of California to achieve the no discharge standard of the BPT onshore subcategory regulations (40 CFR 435.30) may no longer be appropriate. The Santa Maria Basin consists of the following oil fields: Barham Ranch; Careaga Canyon; Casmalia; Cat Canyon East; Cat Canyon West; Four Deer; Gato Ridge; Guadalupe; Jesus Maria; Lompoc; Los Alamos; Olivera Canyon; Orcutt; Santa Maria Valley; Tinaquic and Zaca. These oil fields are the ones listed

as being included in the Santa Maria District by the Joint Committee on Nomenclature of the American Association of Petroleum Geologists and the Conservation Committee of California Oil Producers consulting with the California Division of Oil and Gas Representatives.

The injected water follows a subsurface fracture, displaces the oil in adjacent wells and has substantially reduced production capacity in the Santa Maria Basin. In addition, there is evidence to suggest that the requirement of continuing the practice of injection into existing disposal zones at current or expanded levels may cause ground-water contamination because of the area's special geological features. The high injection pressure at the wellhead has caused the reservoir pressures to exceed the formation fracture pressure. This could cause the movement of injection fluids into fresh water aquifers through existing fault planes and fractures as a result of injection pressure. Also, the possibility of developing new disposal wells in other zones at greater depths is severely limited because of the geological features. The porosity, permeability and reservoir capacity of other zones are considered unfavorable to dispose of injection fluids economically and safely. On the basis of this new information, EPA is suspending the applicability of § 435.30 to wells located in the Santa Maria Basin. Permit conditions will be established on a case-by-case basis.

C. Promulgation Without Notice and Comment; OMB Review

Because this regulation is in direct response to the Court's opinion and otherwise responds to pressing issues raised by the public pertaining to public health and loss of domestic oil production, the Administrator has determined that there is good cause to promulgate this regulation without prior opportunity for notice and comment pursuant to Section 553(b) of the Administrative Procedure Act.

Under Executive Order 12291, EPA must judge whether a regulation is "major" and therefore subject to the requirement of a Regulatory Impact Analysis. This regulation is not major because it imposes no new obligations. This notice was submitted to the Office of Management and Budget for review, as required by Executive Order 12291.

List of Subjects in 40 CFR Part 435

Oil and gas exploration, Water pollution control, Waste treatment and disposal.

Dated: July 13, 1982.

Anne M. Gorsuch,
Administrator.

PART 435—OIL AND GAS EXTRACTION POINT SOURCE CATEGORY

40 CFR 435.30 is amended by adding the following sentence as follows:

Subpart C—Onshore Subcategory

§ 435.30 Applicability; description of the onshore subcategory

* * * *Provided, however,* That the applicability of this subpart to (a) facilities in existence on April 13, 1979 or thereafter engaged in the production, field exploration, drilling, well completion and well treatment in the oil and gas extraction industry which are located on land and which would have been considered "coastal" as defined under the interim final regulations for this industry (40 CFR 435.41, 41 FR 44942, October 13, 1976) or which are (b) located in the Santa Maria Basin of California is suspended.

Authority: (Sections 301, 304(b) and 501 of the Clean Water Act as amended, 33 U.S.C. 1251 *et seq.*)

[FR Doc. 82-19668 Filed 7-19-82; 8:45 am]

BILLING CODE 6560-50-M

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Parts 2, 94 and 100

[Gen. Docket No. 80-603; FCC 82-285]

Development of Regulatory Policy in Regard to Direct Broadcast Satellites for the Period Following the 1983 Regional Administrative Radio Conference

AGENCY: Federal Communications Commission.

ACTION: Interim rule.

SUMMARY: The Federal Communications Commission (FCC) finds authorization of Direct Broadcast Satellite (DBS) systems in the public interest and establishes rules for their operation in the interim period before the 1983 Regional Administrative Radio Conference. The FCC also allocates spectrum for a DBS service and sets forth a method of accommodating terrestrial microwave licensees now occupying the frequencies allocated to DBS. The action was taken in order to make possible the introduction of DBS service in the United States. The action is intended to allow licensing and construction of DBS systems to proceed and to cause a minimum of disruption to terrestrial microwave systems.